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| APPLICATION NO.   | FILING DATE  | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.   | CONFIRMATION NO. |
| 10/644,741  | 08/21/2003   | Sang Woon Suh        | 1740-000055/US        | 6208             |
| 30593   | 7590         | 03/20/2008           | EXAMINER              |                  |
| HARNESS, DICKEY & PIERCE, P.L.C.<br>P.O. BOX 8910<br>RESTON, VA 20195 |              |                      | LAMB, CHRISTOPHER RAY |                  |
| ART UNIT  | PAPER NUMBER |                      |                       |                  |
|   |              |                      | 2627                  |                  |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|                              |  |                                   |
|------------------------------|--|-----------------------------------|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/644,741   | <b>Applicant(s)</b><br>SUH ET AL. |
|                              | <b>Examiner</b><br>Christopher R. Lamb | <b>Art Unit</b><br>2627           |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 20 December 2007.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1,3,5,7-9,14-17 and 19-22 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1,3,5,7-9,14-17 and 19-22 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 5, and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (US 6,289,102) in view of Reed (US 2002/0111993).

Regarding claim 1:

Ueda discloses a high-density computer-readable medium (abstract: it is high density as described in column 1), comprising:

at least one access block including physical address data and user control data (the lead-in area: column 7, lines 55-65);

at least one playback allowance code (abstract: "key information"), which is adapted to determine region-based allowance of playback of data recorded on the recording medium (column 2, lines 25-40),

at least one of an address unit number and user data recorded on the recording medium (abstract),

wherein at least one of the address unit number and the user data is scrambled by being logically combined with said at least one playback allowance code (abstract: e.g., column 8, lines 1-15).

Ueda does not disclose:

(A) wherein the physical address data has 24 columns and 6 rows, and the user control data has 24 columns and 24 rows; or

(B) at least one false playback allowance code stored in the user control data for a playback-inhibited region, the at least one false playback allowance code being recorded with an optional value other than a value of said playback allowance code.

Regarding (A):

It would have been obvious to one of ordinary skill in the art at the time of the invention wherein in Ueda the physical address data has 24 columns and 6 rows, and user control data has 24 columns and 24 rows.

The rationale is as follows:

Ueda discloses a lead-in area that contains physical address data and user control data. The only difference between Ueda and the claimed invention is the claimed number of columns and rows: in other words, the size of the area.

However, that size can easily be determined in the course of routine engineering optimization/experimentation to determine the appropriate size. Moreover, absent a showing of criticality, i.e., unobvious or unexpected results, the relationships set forth in this claim are considered to be within the level of ordinary skill in the art.

Additionally, the law is replete with cases in which the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves

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unexpected results relative to the prior art range(s); see *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing unexpected results due to the claimed dimensions; see *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

Regarding (B):

Reed discloses recording decoy keys on an optical disc (paragraph 74).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Ueda at least one false playback allowance code for a playback-inhibited region, the at least one false playback allowance code being recorded with an optional value other than a value of said playback allowance code (in other words, a decoy code).

The motivation would have been to improve the security of the disc.

Regarding claim 3:

In Ueda in view of Reed said at least one playback allowance code comprises a code for a playback-allowed region (column 2, lines 25-40), the code for the playback-allowed region being combined with at least one of the address unit number and the user data in a scrambled state (Ueda abstract: e.g., column 8, lines 1-15).

Regarding claim 5:

In Ueda in view of Reed said at least one playback allowance code is used to de-scramble at least one of the address unit number and the user data when the recording medium is played back (Ueda abstract: e.g., column 7, lines 55-65).

Regarding claim 14:

Ueda in view of Reed discloses a method of recording data on a high-density computer-readable medium, comprising the steps of:

(A) selecting a region-based playback allowance code in order to restrict a playback, the region-based playback allowance code being unique to at least one region (selecting a code: Ueda column 7, lines 40-65; that a code may be region-based: Ueda column 2, lines 25-40) and being stored in user control data of at least one data block (the lead-in area), the at least one data block including physical address data having 24 columns and 6 rows, and the user control data having 24 columns and 24 rows (obvious as noted in the rejection of claim 1 above); and

(B) scrambling at least one of a user data and an address unit based on the selected region-based playback allowance code (Ueda column 7, lines 40-55); and

(C) associating at least one false playback allowance code stored in the user control data with a playback-inhibited region, the at least one false playback allowance code being recorded with an optional value other than a value of said playback allowance code (decoy codes are taught by Reed as discussed above).

Regarding claim 15:

The method of Ueda in view of Reed further comprises the steps of:

(C) recording at least one of the scrambled user data and the address unit with the selected region-based playback allowance code on the high-density recording medium (Ueda column 7, lines 40-65).

Regarding claim 16:

In Ueda in view of Reed the selected region-based playback allowance code is one of at least two codes (e.g., Ueda Fig. 3: Ueda has multiple codes and the number indicates which one is used).

Regarding claim 17:

All elements positively recited have already been identified with respect to earlier rejections (non region-based playback allowance codes are the decoy codes taught by Reed). No further elaboration is necessary.

3. Claims 7-9 and 19-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda in view of Reed.

(Although the same prior art has been used to reject these claims as the previous one, they are listed separately because a different embodiment of Ueda has been relied upon).

Regarding claim 7:

Ueda discloses:

Ueda discloses:

A method for reproducing data of a high-density computer-readable medium, comprising the steps of:

(A) identifying region identification information stored in a recording/reproducing apparatus, and detecting a region-based playback allowance code stored in user control data of the computer-readable medium that includes at least one access block having physical address data and user control data (the lead-in area noted in column 32: step S1400), corresponding to the identified region identification information, from user control data recorded on the recording medium (column 32: step S1400 – in this embodiment the disk key is a region-based playback allowance code. The disc key is region-based because it itself can only be decrypted if the apparatus possesses the correct master code, which is stored in the apparatus, and thus can be restricted by region, as in column 2, lines 25-40); and

(B) de-scrambling a scrambled address unit number read from the optical disc, based on the detected playback allowance code, and (column 32: step S1402 – the disk key is used to decrypt the encrypted sector header, which inherently includes address information)

performing a data reproducing operation by referring to the de-scrambled address unit number (column 33, lines 20-25).

Ueda does not disclose:

(I) wherein the physical address data has 24 columns and 6 rows, and the user control data has 24 columns and 24 rows; or

(II) associating at least one false playback allowance code stored in the user control data with a playback-inhibited region, the at least one false playback allowance

code being recorded with an optional value other than a value of said playback allowance code.

Regarding (I):

It would have been obvious to one of ordinary skill in the art at the time of the invention wherein in Ueda the physical address data has 24 columns and 6 rows, and user control data has 24 columns and 24 rows.

The rationale is as follows:

Ueda discloses a lead-in area that contains physical address data and user control data. The only difference between Ueda and the claimed invention is the claimed number of columns and rows: in other words, the size of the area.

However, that size can easily be determined in the course of routine engineering optimization/experimentation to determine the appropriate size. Moreover, absent a showing of criticality, i.e., unobvious or unexpected results, the relationships set forth in this claim are considered to be within the level of ordinary skill in the art.

Additionally, the law is replete with cases in which the mere difference between the claimed invention and the prior art is some range, variable or other dimensional limitation within the claims, patentability cannot be found.

It furthermore has been held in such a situation, the applicant must show that the particular range is critical, generally by showing that the claimed range achieves unexpected results relative to the prior art range(s); see *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990).

Moreover, the instant disclosure does not set forth evidence ascribing

unexpected results due to the claimed dimensions; see *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338 (Fed. Cir. 1984), which held that the dimensional limitations failed to point out a feature which performed and operated any differently from the prior art.

Regarding (II):

Reed discloses recording decoy keys on an optical disc (paragraph 74).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Ueda associating at least one false playback allowance code stored in the user control data with a playback-inhibited region, the at least one false playback allowance code being recorded with an optional value other than a value of said playback allowance code (in other words, a decoy code).

The motivation would have been to improve the security of the disc.

Regarding claim 8:

In Ueda in view of Reed the region identification information is intrinsic region identification information for a region where the recording/reproducing apparatus is to be sold and used (again, because the disk key is decoded using a master key stored in the apparatus, it is intrinsically restricted to the region where the apparatus is sold).

Regarding claim 9:

In Ueda in view of Reed the step (B) comprises the step of logically combining the detected playback allowance code with the scrambled address unit number read from the recording medium, thereby de-scrambling the scrambled address unit number into an original address unit number (column 32: step S1402).

Regarding claim 19:

This claim is dependent on claim 1, which a different embodiment of Ueda was relied upon to reject, as per the rejection above. However, the embodiment used for claims 7-9 can be used to reject all elements of this claim as follows.

Ueda in view of Reed discloses:

A high-density, computer-readable medium, comprising:

at least one access block including physical address data (the lead-in noted in column 32: step S1400) having 24 columns and 6 rows (obvious as discussed above), and user control data (column 32: step S1400) having 24 columns and 24 rows (obvious as discussed above);

at least one playback allowance code stored in the user control data, the at least one playback allowance code being adapted to determine region-based allowance of playback of data recorded on the recording medium (the disc key as discussed in the rejection of claim 7 above);

at least one false playback allowance code stored in the user control data for a playback-inhibited region, the at least one false playback allowance code being recorded with an optional value other than a value of said playback allowance code (the decoy keys taught by Reed, as discussed above); and

at least one of an address unit number and user data recorded on the recording medium (column 32, step S1402: the sector header includes an address) wherein at least one of the address unit number and the user data is scrambled by being logically combined with said at least one playback allowance code (column 32, step S1402: it is scrambled as noted there),

further comprising a second playback allowance code stored in the user control data, the second playback allowance code being adapted to determine region-based allowance for a second region for playback of data recorded on the recording medium (there are multiple keys, as in Ueda column 19, lines 15-30; these keys can be region-based as discussed above).

Regarding claims 20-22:

All elements positively recited have already been identified with respect to earlier rejections. No further elaboration is necessary.

***Response to Arguments***

4. Applicant's arguments filed December 20th, 2007 have been fully considered but they are not persuasive.

Applicant's first argument is regarding the limitation wherein the access block has 24 columns and 6 rows, and the user control data has 24 columns and 24 rows.

Applicant argues that "a clear articulation of the reasoning of why the claimed invention would have been obvious has not been made."

The Examiner argued that these sizes could easily be determined in the course of routine optimization or experimentation.

To refute this, Applicant first argues that section 2144.05, IIA, of the MPEP requires "that in order for optimization of a range to be obvious, it must be carved from a range shown within the prior art," and that the Examiner has not shown that the claimed range is a subset of a prior art range.

However, this is not the applicable section of the MPEP: this section deals with the obviousness of ranges, and neither applicant nor the prior art discloses a range. Applicant may be confused because the Examiner's statement referred to "some range, variable or other dimensional limitation," but in this case it is a dimensional limitation at issue: i.e., the size of the blocks.

The Examiner respectfully directs Applicant's attention to the previous section of the MPEP, 2144.04, and in particular the subsection titled "IV. CHANGES IN SIZE, SHAPE, OR SEQUENCE OF ADDING INGREDIENTS."

Applicant is not disputing that the prior art contains an access block or user control data. However, the prior art does not disclose an access block or user control data that is the exact size claimed by Applicant. Therefore, the question is whether the change in size disclosed by Applicant renders the claim allowable over the prior art.

As quoted MPEP section 2144.04, "*in Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device."

In this case, the prior art may have a different number of columns and rows in the access control block and user data block, but the claimed blocks and the prior art blocks do not perform differently. Therefore the change in size claimed by Applicant does not make their invention patentably distinct.

Applicant next argues with the Examiner's statement that absent a showing of criticality, the relationships shown in the claim are considered within the level of ordinary skill in the art. Applicant argues that there is no clear articulation of why this limitation is considered to be within the level of ordinary skill.

It is within the level of ordinary skill because the only difference between the claim limitation and the prior art is the specific size. Slightly changing the size of a data area would be obvious to anyone, much less someone of ordinary skill in the art.

Applicant next makes a similar argument regarding ranges and criticality. Again, it is obvious to make the blocks a different size, because the two sizes perform the same basic function.

Applicant next argues with the combination of Ueda in view of Reed, which was previously used to reject, e.g., claim 4, and has now been applied to all claims.

Applicant argues that while Reed does disclose decoy keys, there is no teaching or suggestion to associate those keys with a playback inhibited geographical region.

However, the decoy keys are false keys, intended to simulate real ones. Since in Ueda the real key is associated with a geographical region, in order to be successful decoys, the decoy keys must also be associated with geographical regions. Otherwise they don't resemble the real key. Since these keys are only decoys, they don't work, and therefore the geographical regions they are associated with are playback inhibited.

### ***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher R. Lamb whose telephone number is (571) 272-5264. The examiner can normally be reached on 9:00 AM to 5:30 PM Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 262-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph H. Feild/  
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CRL 3/13/08